

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-4 and 44 without prejudice or disclaimer. The listing of claims below will replace all prior versions and previous listings of claims in this application:

Claims 1-4 (cancelled)

Claim 5 (currently amended): A monoclonal antibody or fragment thereof ~~according to claim 1~~ capable of binding specifically to the extracellular I-domain of the integrin alpha10 chain, wherein the antibody is produced by the hybridoma cell line deposited at the Deutsche Sammlung von Microorganismen und Zellkulturen GmbH under the accession number DSM ACC2583.

Claim 6 (previously presented): A hybridoma cell line deposited at the Deutsche Sammlung von Microorganismen und Zellkulturen GmbH under the accession number DSM ACC2583.

Claims 7-30 (withdrawn)

Claim 31 (currently amended): A composition comprising a monoclonal antibody or fragment thereof according to ~~claim 1~~ claim 5.

Claim 32 (currently amended): ~~The~~ A composition according to claim 31 wherein the monoclonal antibody or a fragment thereof further comprises a detectable label.

Claim 33 (currently amended): An administration vehicle comprising a monoclonal antibody or fragment thereof according to ~~claim 1~~ claim 5.

Claim 34 (currently amended): An administration vehicle comprising a monoclonal antibody or fragment thereof according to ~~claim 1~~ claim 5, a pharmaceutical

acceptable carrier, and a pharmaceutical acceptable drug affecting joint diseases or atherosclerosis.

Claim 35 (currently amended): A pharmaceutical composition for the treatment of musculoskeletal diseases, arthritis or atherosclerosis comprising a monoclonal antibody or ~~[[a]]~~ fragment thereof according to ~~claim 4~~ claim 5.

Claim 36 (currently amended): A pharmaceutical composition for gene therapy treatment of musculoskeletal diseases, arthritis or atherosclerosis comprising a monoclonal antibody or fragment thereof according to ~~claim 4~~ claim 5, wherein the monoclonal antibody or fragment targets gene delivery to integrin alpha10 beta1 expressing cells.

Claim 37 (currently amended): ~~The~~ A pharmaceutical composition according to claim 36 comprising adenovirus for gene therapy treatment of arthritis.

Claim 38 (currently amended): A kit comprising a monoclonal antibody or fragment thereof according to ~~claim 4~~ claim 5.

Claim 39 (currently amended): ~~The~~ A kit according to claim 38, wherein the monoclonal antibody or ~~[[a]]~~ fragment thereof is bound to a solid phase.

Claim 40 (currently amended): ~~The~~ A kit according to claim 38, wherein the monoclonal antibody or ~~[[a]]~~ fragment thereof comprises a detectable label.

Claim 41 (previously presented): A kit comprising a hybridoma cell line according to claim 6, and a cell culture medium for said hybridoma cell line.

Claim 42 (currently amended): A method for making a monoclonal antibody ~~according to claim 1~~ capable of binding to a protein which is specifically recognized by a

monoclonal antibody or fragment thereof according to claim 5, the method comprising the steps of:

- a) immunizing and boosting an alpha-10 knock-out mouse with recombinant alpha-10 I-domain;
- b) fusing the spleen cells from the immunized mouse with immortalized cells to create hybridoma cells; and
- c) culturing the hybridoma cells and isolating the antibodies produced thereby.

Claim 43 (previously presented): A method according to claim 42 wherein the immortalized cells are NSO cells.

Claim 44 (canceled)

Claim 45 (new): A monoclonal antibody, or fragment thereof, produced by a method according to claim 42, wherein the antibody is not produced by the hybridoma cell line deposited at the Deutsche Sammlung von Microorganismen und Zellkulturen GmbH under the accession number DSM ACC2583.

Claim 46 (new): A monoclonal antibody or fragment thereof according to claim 45, wherein the antibody or fragment is humanized.

Claim 47 (new): A monoclonal antibody or fragment thereof according to claim 45, wherein the fragment is selected from the group consisting of Fv, Fab, Fab', F(ab')₂ and single chain antibodies.

Claim 48 (new): A monoclonal antibody or fragment thereof according to claim 5, wherein the antibody or fragment is humanized.

Claim 49 (new): A monoclonal antibody or fragment thereof according to claim 5, wherein the fragment is selected from the group consisting of Fv, Fab, Fab', F(ab')₂ and single chain antibodies.